

### In The Claims

**Presented below are the amended claims in a clean-unmarked format**

- C1
1. (Amended) An apparatus comprising:
- a plurality of analog photocells adapted to capture light energy incident upon them as a series of a plurality of analog signals;
  - a first sample-and-hold amplifier coupled to said plurality of photocells and adapted to store a first plurality of analog signals of the series;
  - a second sample-and-hold amplifier coupled to the first sample-and-hold amplifier and adapted to store the first plurality of analog signals when the first sample-and-hold amplifier stores a second plurality of analog signals of the series;
  - a first digital converter coupled with the second sample-and-hold amplifier to receive serially the first plurality of analog signals, wherein the first digital converter converts the first plurality of analog signals to a digital key frame;
  - a digital memory coupled with the first digital converter for receiving and storing the digital key frame;
  - a differential amplifier coupled to the first and second sample-and-hold amplifiers generating an analog difference of the first plurality of analog

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signals and the second plurality of analog signals, wherein the first plurality of analog signals and the second plurality of analog signals are received serially from the second sample-and-hold amplifier and the first sample-and-hold amplifier, respectively;

a second digital converter coupled with said differential amplifier said converter transforming the analog difference into a digital value.

2. (Amended) An apparatus according to claim 1 wherein said second digital converter includes:

a voltage controlled oscillator;

a counter coupled to said oscillator, said oscillator setting the rate of increase of said counter.

3. An apparatus according to claim 2 further comprising:

a register coupled to said counter, said register receiving said digital value as an output of said counter at the end of a predetermined time period.

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4. (Amended) An apparatus according to claim 2, wherein said second digital converter includes:

a scaling signal supply, said supply adapting the output of said oscillator in a dynamic range consistent with ambient lighting to which said plurality of analog photocells are exposed.

5. An apparatus according to claim 1 utilized in an imaging device.